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## *Phyllonorycter mulleriella* Zeller (*amyotella* Duponchel) (Lep.: Gracillariidae) in Britain

By A. M. EMMET

Labrey Cottage, Victoria Gardens, Saffron Walden, Essex

My wife and I spent last Christmas in north Lancashire, and on the afternoon of Boxing Day we went for a walk on Arnside Knott, which is just in Westmorland. There are many young oaks growing on the Knott, and these tend to retain their dead leaves through the winter until the new growth replaces them in the spring. So we started to search on these trees for vacated mines of the *Ectoedemia subbimaculella* group for recording purposes. We were not very successful, for *E. albifasciella* Heinemann was the only species we could find, and so I rather casually turned my attention to the *Phyllonorycter* mines which were far more numerous. I collected a bag of about three dozen and subsequently kept them indoors in a warm room. About half produced parasites (still to be determined) and there were ten *Phyllonorycters*; eight of these were *quercifoliella* Zeller and the other two were *mulleriella*. These latter emerged on 22nd and 31st January. Since *mulleriella* is an extremely scarce and local species which has

seldom, if ever, been recorded in recent years, I have done a little research into its distribution.

Meyrick (1928) gives the range as "Gloucester, Worcester, Lancashire to Durham". This indicates two areas for its occurrence, the west midlands and the north of England. Let us first consider the midlands.

The Gloucestershire records seem to be based on captures made by Sircom in the Bristol area in the middle of the last century. The only exact locality I have traced is Brislington, which is, in fact, in Somerset. Brislington is now a very urban suburb of Bristol and is no longer a likely locality. One of the specimens of *mulleriella* in the Bankes collection at the British Museum (Natural History) is labelled "ex coll. Mason". There was a good nineteenth century collector called Mason who lived at Clevedon, on the Somerset coast about five miles out of Bristol, and if this was his specimen, it may have come from north Somerset. Fletcher and Clutterbuck (1943) quote Meyrick as the authority for the occurrence of *mulleriella* in Gloucestershire, and can add nothing else except that a Gloucester schoolmaster gave Clutterbuck a specimen without date (? data) in 1932. *The Victoria County History for Worcestershire* (1901) includes *mulleriella* solely on the authority of Meyrick without knowledge of his source. The neighbouring county of Herefordshire is far better worked, because it had J. H. Wood, a resident microlepidopterist of distinction; but Wood does not include *mulleriella* in the list he wrote for the *Victoria County History of Herefordshire* (1908), nor is there a specimen in his collection. So it would seem that only the Bristol area has well authenticated records, and there is no reason why it should not still be present in good localities such as Leigh Woods or Goblin Coombe.

Records for the north of England are more numerous. *The Victoria County History of Westmorland* (unpublished, but extant in proof form in the library at the British Museum) is the most precise, for it states that T. H. Allis took a specimen near Windermere in 1849 (recorded by Stainton in 1850) and that Hodgkinson captured "a few" at the same locality in 1888; there were, however, no subsequent records up to 1908. The Bankes Collection has seven specimens taken by Hodgkinson, which may be the ones from Windermere. Other north country localities culled from the several works listed below under "References" are as follows: Cumberland: Keswick and Carlisle; Durham: Darlington; Yorkshire: Richmond, Scarborough and York. Threlfall has twelve specimens in the Bankes Collection; he lived at Preston in Lancashire but also collected in Westmorland. Sang, who was the authority for Richmond as a locality and probably also for Darlington, also has a specimen in the Bankes Collection. One other in that collection is labelled "ex coll. Shepherd": I have no knowledge of the collector or his district. Neither Ford nor Waters ever took *mulleriella*, but the former has four specimens "ex coll. Hanbury"; here again, I have no further particulars.

The mine of *mulleriella* is indistinguishable from that of *quercifoliae*, and both species pupate in a translucent cocoon edged with frass; when held up to the light, the cocoons appear to be placed in an elongated black "U". In this aspect they differ from some of the other oak-feeding Phyllonorycters, which encase their cocoons completely in black frass. Ford (1949) states that *mulleriella* is "reputed to feed on leaves at the top of a tree". This seems to me like an aetiological theory to explain away failure to find the mine; at any rate, the mines I found were within easy reach of the ground.

I recommend collectors to gather mines of the type I have described and in the localities such as those I have mentioned, and it may well transpire that *mulleriella* is not such an elusive quarry after all.

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## Albarracin and Vicinity, Spain, in July 1973

By JOHN and MARGARET DACIE

10 Alan Road, Wimbledon, London, SW19

and JACK and DOROTHY GREENWOOD

The Thatches, Forest Road, Pyrford, Woking, Surrey

The following is an account of a 2-week entomological holiday spent in Spain in the regions of the Sierra de Albarracin and Valencia between 20th July and 3rd August 1973. We flew from Heathrow to Valencia, collected two hired cars at Valencia airport and then drove via the City — in which we found it only too easy to get lost — up the coastal road to Sagunto and thence inland on a metalled road with many hairpin bends in a N.W. direction to Teruel (elev. 916 m) where we stayed at the excellent Parador Hotel, situated in pine woods just beyond the town on the Zaragoza road, in all a 150 km drive. The bedrooms and public rooms were excellent, the meals attractive and well served, the staff cheerful and most helpful. Albarracin (elev. 1182 m) is about 25 km W.